

AL0660WV

6 x 60 W RGBW Zoom Moving Head Bar

INDEPENDENT TILT + ZOOM - CONTINUOUS PAN - USER MANUAL

Professional beam, wash and synchronized multi-head effect fixture



READ BEFORE USE Keep this manual with the fixture. Installation, operation and service must be performed by qualified personnel.

English Edition - Specifications subject to change without notice

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MODEL IDENTIFICATION This edition uses model AL0660WV following the product owner's confirmed model correction. Confirm the model, voltage rating and firmware shown on the actual fixture before installation or programming.

SOURCE CORRECTION The overview lists 28CH, while the menu and complete channel table identify 38CH. This edition uses 38CH consistently.

1 Safety Information

DANGER Disconnect AC power and allow the fixture to cool before opening, cleaning, inspection, fuse replacement or service.

- This professional fixture must be installed, operated and serviced by qualified personnel.
- Use only AC 100-240 V, 50/60 Hz as specified by the source and product label. Connect to a protected, properly grounded Class I supply.
- If an external flexible cable is damaged, have it replaced by the manufacturer, its service agent or similarly qualified personnel.
- Do not operate the fixture with a damaged housing, lens, connector, mounting point or cable.
- After a large temperature change, leave the fixture disconnected until it reaches ambient temperature and all condensation has evaporated.
- Keep flammable materials at least 0.2 m away and maintain clear ventilation around the fixture.
- Do not look directly into the LEDs at close range. Flashing light may trigger seizures in susceptible people; follow local restrictions.
- For overhead installation, use rated clamps and an independently rated safety cable attached to the designated point.
- Carry the fixture only by its handles or mounting structure. Do not lift it by the moving head bar or individual heads.

INDOOR USE The source specifies IP20. Protect the fixture from rain, splashing water, condensation and excessive dust. Do not use it outdoors without a correctly rated enclosure.

2 Product Overview

The AL0660WV combines six 60 W RGBW four-in-one LEDs with independent head tilt and motorized zoom on a moving base. Continuous pan rotation, color macros, patterns and synchronized effects support beam, wash and multi-head fan looks for stages, clubs, studios and live events.

2.1 Technical Specifications

Parameter	Specification
Input voltage	AC 100-240 V, 50/60 Hz
Rated power	360 W (source specification)
Light source	6 x 60 W RGBW 4-in-1 LEDs
Control	DMX512 / Auto / Master-Slave / RDM
DMX personalities	23CH / 38CH / 62CH / 92CH / 94CH
Dimming	32-bit, 0-100% linear dimming
Movement / optics	Base pan with continuous rotation; six independent tilt and motorized zoom heads
Primary effects	Beam, wash, patterns, color macros and synchronized multi-head movement
Operating temperature	-30 °C to 50 °C (source specification)
Strobe	1-30 Hz
Connections	DMX512 input/output; power input/output
Ingress protection	IP20
Construction / finish	Metal, black
Dimensions	544.42 x 225.7 x 350.85 mm
Net weight	15.5 kg

2.2 Main Functions

- Six independently controllable tilt and zoom heads with RGBW color mixing.
- Base pan, pan fine and continuous pan rotation.
- Built-in tilt macros, color macros, patterns, LED effects and background colors.
- Linear master dimming, multiple dimmer curves and detailed strobe modes.
- Five controller personalities from compact control to independent head color and movement control.
- RDM support for compatible controllers and firmware.

3 Setup and Installation

3.1 AC Power

Before connecting power, verify that the product-label voltage and frequency match the local supply. Complete all mounting and data connections before applying power. Disconnect by holding the plug or connector, not by pulling the cable.

3.2 Rigging

STRUCTURAL RATING The support structure and every attachment must be rated for the fixture and applicable safety factors. Keep people clear of the area below during installation and service.

1. Inspect the fixture, clamps, fasteners, mounting points, safety cable and support structure.
2. Attach correctly rated clamps to the designated mounting points and tighten all fasteners.
3. Attach an independently rated safety cable to the designated safety point; never attach it to a moving head.
4. Confirm clearance for full pan, tilt and zoom travel, and maintain at least 0.2 m from combustible materials.
5. Recheck every attachment before applying power.

3.3 DMX512 / RDM Connection

Use shielded, twisted-pair cable intended for RS-485/DMX512. Connect the controller to DMX IN, then link DMX OUT to the next fixture. RDM functions require a compatible controller, correct cabling and supported firmware.

3-pin XLR	Signal
Pin 1	Shield / signal common
Pin 2	Data -
Pin 3	Data +

TERMINATION At the last fixture in a long or electrically noisy DMX chain, install a 120 ohm resistor between pins 2 and 3 of a male XLR plug and insert it into DMX OUT.

4 Control Panel and Menu

Use MENU to enter or return, UP/DOWN to select an item or change a value, and ENTER to open an item or save the edited value. Menu labels may vary slightly with firmware revision.

PROTECTED SETTINGS Factory home-position and color calibration are service-only. Record every original value before editing; incorrect calibration can damage movement, optics or output.

Category	Item	Option / Range	Operation
DMX Features	DMX address	1-493	Set the start address (source range 1-493; verify against the selected personality and firmware).
DMX Features	Channel	23CH	Select the 23CH personality.
DMX Features	Channel	38CH	Select the 38CH personality.
DMX Features	Channel	62CH	Select the 62CH personality.
DMX Features	Channel	92CH	Select the 92CH personality.
DMX Features	Channel	94CH	Select the 94CH personality.
DMX Features	DMX status	Standby	Select the response after loss of DMX signal.
DMX Features	DMX status	Manual	Select the response after loss of DMX signal.
DMX Features	DMX status	Hold	Select the response after loss of DMX signal.
DMX Features	Observe channel values	Channel1	Monitor received controller data.
DMX Features	Observe channel values	Channel2	Monitor received controller data.
DMX Features	Observe channel values	...	Monitor received controller data.
DMX Features	Observe channel values	...	Monitor received controller data.
Control Settings	Tilt Reverse	No	Reverse or restore the tilt direction.
Control Settings	Tilt Reverse	Yes	Reverse or restore the tilt direction.
Control Settings	Tilt Range	200	Set the available tilt travel.
Control Settings	Tilt Range	90	Set the available tilt travel.
Control Settings	Tilt Range	150	Set the available tilt travel.
Control Settings	Tilt Self-Test	On	When enabled, tilt resets automatically if the home Hall sensor is not detected.
Control Settings	Tilt Self-Test	Off	When enabled, tilt resets automatically if the home Hall sensor is not detected.
Control Settings	Color mode	RGB	Red green Blue mode
Control Settings	Color mode	CMY	CMY mode
Control Settings	Dimming curve	Square	Square
Control Settings	Dimming curve	Linear	Linear
Control Settings	Dimming curve	S Curve	Sine
Control Settings	Dimming curve	Inv SQ	Inverse square
Control Settings	Dimming speed	Smooth	Smooth
Control Settings	Dimming speed	Fast	Fast
Control Settings	LED frequency	16KHz	
Control Settings	Pixel Order Reverse	Yes	Reverse or restore the tilt-head and LED sequence.
Control Settings	Pixel Order Reverse	No	Reverse or restore the tilt-head and LED sequence.
Control Settings	Reset	No Function	Run the selected reset function.
Control Settings	Reset	All Motors	Run the selected reset function.
Control Settings	Reset	Zoom Motor	Run the selected reset function.
Control Settings	Reset	Tilt Motor	Run the selected reset function.
Control Settings	White Balance	Red	Service white-balance calibration for the selected color.
Control Settings	White Balance	Green	Service white-balance calibration for the selected color.
Control Settings	White Balance	Blue	Service white-balance calibration for the selected color.
Control Settings	White Balance	White	Service white-balance calibration for the selected color.
Control Settings	Restore Factory Settings	factory data reset	Restore factory data.
Display Settings	Display reverse	Yes/No	

Category	Item	Option / Range	Operation
Display Settings	Backlight brightness	1-10	Adjust display brightness from 1 (dark) to 10 (bright).
Display Settings	Temperature unit	°C	Degrees Celsius
Display Settings	Temperature unit	°F	Degrees Fahrenheit
Display Settings	Language	Chinese/English	
Equipment Testing	Automated testing	Off	Enable or disable the automatic fixture test.
Equipment Testing	Automated testing	On	Enable or disable the automatic fixture test.
Equipment Testing	Manual testing	Tilt	Select and test an individual function.
Equipment Testing	Manual testing	Tilt Speed	Select and test an individual function.
Equipment Testing	Manual testing	...	Select and test an individual function.
Equipment Testing	Manual testing	...	Select and test an individual function.
System information	Software version	Display the software version number	Display the software version number
System information	Temperature	LED1	
System information	Temperature	...	
System information	Hall condition	tilt axis Hall	0 when magnetic is detected, 1 otherwise
System information	Hall condition	Zoom Hall	0 when magnetic is detected, 1 otherwise
System information	Hall condition	...	0 when magnetic is detected, 1 otherwise
System information	Error recording		View error log
System information	Equipment time		Equipment usage time
System information	LED time		LED usage time
System information	Permission duration		9999 unlimited; Other values have time limits
Factory Settings	Reset calibration	Head 1 Tilt	Service home-position offset, -128 to +127; 0 = no adjustment. Record the original value before editing.
Factory Settings	Reset calibration	Head 1 Zoom	Service home-position offset, -128 to +127; 0 = no adjustment. Record the original value before editing.
Factory Settings	Reset calibration	Head 2 Tilt	Service home-position offset, -128 to +127; 0 = no adjustment. Record the original value before editing.
Factory Settings	Reset calibration	...	Service home-position offset, -128 to +127; 0 = no adjustment. Record the original value before editing.
Factory Settings	Color Calibration	Head 1 Red	Service-only per-head color calibration. Record the original value before editing.
Factory Settings	Color Calibration	Head 2 Red	Service-only per-head color calibration. Record the original value before editing.
Factory Settings	Color Calibration		Service-only per-head color calibration. Record the original value before editing.

5 DMX512 Channel Reference

Select the same personality on the fixture and controller. The source menu lists start addresses 1-493; the usable highest address also depends on the selected personality and controller patch, so verify the installed firmware before programming.

SOURCE NORMALIZATION The overview typo 28CH is corrected to 38CH. Pattern value 001-002 is corrected to 001-255 where the source description explicitly states Pattern 1-255.

Personality	Coverage
23CH	Compact shared movement, color, effects, dimming, strobe and zoom control
38CH	Independent tilt/fine for six heads plus shared color, effects and zoom
62CH	38CH-style movement with independent RGBW color for each head
92CH	Expanded independent movement, zoom, color and color-temperature control
94CH	Control channel plus maximum independent movement, zoom and color control

5.1 23-Channel Personality

Channel	Function	DMX Value	Description
1	Pan	000-255	0-100%
2	Pan Fine	000-255	0-100%
3	Continuous Pan Rotation	001-126 / 127-129 / 130-255	Forward rotation, fast to slow; Stop; Reverse rotation, slow to fast
4	Heads 1-6 Tilt	000-255	0-100%
5	Heads 1-6 Tilt Fine	000-255	0-100%
6	Tilt Speed	000-255	0-100%
7	Tilt Macro	000-004 / 005-255	No function; See Tilt Macro reference
8	CTC	000 / 001-255	No function; From 19,000 K to 2,700 K
9	Color Macro	000 / 001-255	No function; See Color Macro reference
10	Pattern	000 / 001-255	No function; Pattern 1-255
11	LED Effect	000-015 / 016-255	No function; See LED Effect reference
12	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow; Stop; Slow to fast
13	LED Effect Delay	000-255	Fast to slow
14	Background Color	000 / 001-255	No function; See Background Color reference
15	Background color Dimmer	000-255	0-100%
16	Master Dimmer	000-255	0-100%
17	Strobe	000-019 / 020-024	Blackout; See Strobe reference
18	Heads 1-6 Zoom	000-255	0-100%
19	Control	000-009 / 010-255	No function; See Control reference
20	Red / Cyan	000-255	0-100%
21	Green / Magenta	000-255	0-100%
22	Blue / Yellow	000-255	0-100%
23	White	000-255	0-100%

5.2 38-Channel Personality

Channel	Function	DMX Value	Description
1	Pan	000-255	0-100%
2	Pan Fine	000-255	0-100%
3	Continuous Pan Rotation	001-126 / 127-129 / 130-255	Forward rotation, fast to slow; Stop; Reverse rotation, slow to fast
4	Head 1 Tilt	000-255	0-100%
5	Head 1 Tilt Fine	000-255	0-100%
6	Head 2 Tilt	000-255	0-100%
7	Head 2 Tilt Fine	000-255	0-100%
8	Head 3 Tilt	000-255	0-100%
9	Head 3 Tilt Fine	000-255	0-100%
10	Head 4 Tilt	000-255	0-100%
11	Head 4 Tilt Fine	000-255	0-100%
12	Head 5 Tilt	000-255	0-100%
13	Head 5 Tilt Fine	000-255	0-100%
14	Head 6 Tilt	000-255	0-100%
15	Head 6 Tilt Fine	000-255	0-100%
16	Tilt Speed	000-255	Fast to slow
17	Tilt Macro	000-004 / 005-255	No function; See Tilt Macro reference
18	CTC	000 / 001-255	No function; From 19,000 K to 2,700 K
19	Color Macro	000 / 001-255	No function; See Color Macro reference
20	Pattern	000 / 001-255	No function; Pattern 1-255
21	LED Effect	000-015 / 016-255	No function; See LED Effect reference
22	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow; Stop; Slow to fast
23	LED Effect Delay	000-255	Fast to slow
24	Background Color	000 / 001-255	No function; See Background Color reference
25	Background color Dimmer	000-255	0-100%
26	Master Dimmer	000-255	0-100%
27	Strobe	000-019 / 020-024	Blackout; See Strobe reference
28	Head 1 Zoom	000-255	0-100%
29	Head 2 Zoom	000-255	0-100%
30	Head 3 Zoom	000-255	0-100%
31	Head 4 Zoom	000-255	0-100%
32	Head 5 Zoom	000-255	0-100%
33	Head 6 Zoom	000-255	0-100%
34	Control	000-009 / 010-255	No function; See Control reference
35	Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
36	Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
37	Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
38	White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%

5.3 62-Channel Personality

Channel	Function	DMX Value	Description
1	Pan	000-255	0-100%
2	Pan Fine	000-255	0-100%
3	Continuous Pan Rotation	001-126 / 127-129 / 130-255	Forward rotation, fast to slow; Stop; Reverse rotation, slow to fast
4	Head 1 Tilt	000-255	0-100%
5	Head 1 Tilt Fine	000-255	0-100%
6	Head 2 Tilt	000-255	0-100%
7	Head 2 Tilt Fine	000-255	0-100%

Channel	Function	DMX Value	Description
8	Head 3 Tilt	000-255	0-100%
9	Head 3 Tilt Fine	000-255	0-100%
10	Head 4 Tilt	000-255	0-100%
11	Head 4 Tilt Fine	000-255	0-100%
12	Head 5 Tilt	000-255	0-100%
13	Head 5 Tilt Fine	000-255	0-100%
14	Head 6 Tilt	000-255	0-100%
15	Head 6 Tilt Fine	000-255	0-100%
16	Tilt Speed	000-255	Fast to slow
17	Tilt Macro	000-004 / 005-255	No function; See Tilt Macro reference
18	CTC	000 / 001-255	No function; From 19,000 K to 2,700 K
19	Color Macro	000 / 001-255	No function; See Color Macro reference
20	Pattern	000 / 001-255	No function; Pattern 1-255
21	LED Effect	000-015 / 016-255	No function; See LED Effect reference
22	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow; stop; Slow to fast
23	LED Effect Delay	000-255	Fast to slow
24	Background Color	000 / 001-255	No function; See Background Color reference
25	Background color Dimmer	000-255	0-100%
26	Master Dimmer	000-255	0-100%
27	Strobe	000-019 / 020-024	Blackout; See Strobe reference
28	Head 1 Zoom	000-255	0-100%
29	Head 2 Zoom	000-255	0-100%
30	Head 3 Zoom	000-255	0-100%
31	Head 4 Zoom	000-255	0-100%
32	Head 5 Zoom	000-255	0-100%
33	Head 6 Zoom	000-255	0-100%
34	Control	000-009 / 010-255	No function; See Control reference
35	Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
36	Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
37	Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
38	White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
39	Head 1 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
40	Head 1 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
41	Head 1 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
42	Head 1 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
43	Head 2 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
44	Head 2 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
45	Head 2 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
46	Head 2 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
47	Head 3 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
48	Head 3 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
49	Head 3 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
50	Head 3 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
51	Head 4 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
52	Head 4 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
53	Head 4 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
54	Head 4 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
55	Head 5 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
56	Head 5 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
57	Head 5 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
58	Head 5 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
59	Head 6 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
60	Head 6 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%

Channel	Function	DMX Value	Description
61	Head 6 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
62	Head 6 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%

5.4 92-Channel Personality

Channel	Function	DMX Value	Description
1	Pan	000-255	0-100%
2	Pan Fine	000-255	0-100%
3	Continuous Pan Rotation	001-126 / 127-129 / 130-255	Forward rotation, fast to slow; Stop; Reverse rotation, slow to fast
4	Head 1 Tilt	000-255	0-100%
5	Head 1 Tilt Fine	000-255	0-100%
6	Head 2 Tilt	000-255	0-100%
7	Head 2 Tilt Fine	000-255	0-100%
8	Head 3 Tilt	000-255	0-100%
9	Head 3 Tilt Fine	000-255	0-100%
10	Head 4 Tilt	000-255	0-100%
11	Head 4 Tilt Fine	000-255	0-100%
12	Head 5 Tilt	000-255	0-100%
13	Head 5 Tilt Fine	000-255	0-100%
14	Head 6 Tilt	000-255	0-100%
15	Head 6 Tilt Fine	000-255	0-100%
16	Tilt Speed	000-255	Fast to slow
17	Tilt Macro	000-004 / 005-255	No function; See Tilt Macro reference
18	CTC	000 / 001-255	No function; From 19,000 K to 2,700 K
19	Color Macro	000 / 001-255	No function; See Color Macro reference
20	Pattern	000 / 001-255	No function; Pattern 1-255
21	LED Effect	000-015 / 016-255	No function; See LED Effect reference
22	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow; Stop; Slow to fast
23	LED Effect Delay	000-255	Fast to slow
24	Background Color	000 / 001-255	No function; See Background Color reference
25	Background color Dimmer	000-255	0-100%
26	Background color Dimmer Fine	000-255	0-100%
27	Dimming	000-255	0-100%
28	Dimming Fine	000-255	0-100%
29	Shutter	000-019 / 020-024	Blackout; See Strobe reference
30	Head 1 Zoom	000-255	0-100%
31	Head 2 Zoom	000-255	0-100%
32	Head 3 Zoom	000-255	0-100%
33	Head 4 Zoom	000-255	0-100%
34	Head 5 Zoom	000-255	0-100%
35	Head 6 Zoom	000-255	0-100%
36	Control	000-009 / 010-255	No function; See Control reference
37	Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
38	Red Fine Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
39	Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
40	Green Fine Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
41	Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
42	Blue Fine Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
43	White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
44	White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
45	Head 1 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%

Channel	Function	DMX Value	Description
46	Head 1 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
47	Head 1 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
48	Head 1 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
49	Head 1 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
50	Head 1 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
51	Head 1 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
52	Head 1 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
53	Head 2 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
54	Head 2 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
55	Head 2 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
56	Head 2 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
57	Head 2 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
58	Head 2 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
59	Head 2 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
60	Head 2 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
61	Head 3 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
62	Head 3 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
63	Head 3 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
64	Head 3 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
65	Head 3 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
66	Head 3 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
67	Head 3 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
68	Head 3 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
69	Head 4 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
70	Head 4 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
71	Head 4 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
72	Head 4 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
73	Head 4 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
74	Head 4 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
75	Head 4 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
76	Head 4 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
77	Head 5 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
78	Head 5 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
79	Head 5 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
80	Head 5 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
81	Head 5 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
82	Head 5 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
83	Head 5 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
84	Head 5 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
85	Head 6 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
86	Head 6 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
87	Head 6 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
88	Head 6 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
89	Head 6 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
90	Head 6 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
91	Head 6 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
92	Head 6 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%

5.5 94-Channel Personality

Channel	Function	DMX Value	Description
1	Pan	000-255	0-100%
2	Pan Fine	000-255	0-100%
3	Continuous Pan Rotation	001-126 / 127-129 / 130-255	Forward rotation, fast to slow; Stop; Reverse rotation, slow to fast
4	Control	000-009 / 010-255	No function; See Control reference
5	Tilt Speed	000-255	Fast to slow
6	Tilt Macro	000-004 / 005-255	No function; See Tilt Macro reference
7	CTC	000 / 001-255	No function; From 19,000 K to 2,700 K
8	Color Macro	000 / 001-255	No function; See Color Macro reference
9	Pattern	000 / 001-255	No function; Pattern 1-255
10	LED Effect	000-015 / 016-255	No function; See LED Effect reference
11	LED Effect Speed	000-127 / 128 / 129-255	Fast to slow; Stop; Slow to fast
12	LED Effect Delay	000-255	Fast to slow
13	Background Color	000 / 001-255	No function; See Background Color reference
14	Background color Dimmer	000-255	0-100%
15	Background color Dimmer fine	000-255	0-100%
16	Shutter	000-019 / 020-024	Blackout; See Strobe reference
17	Head 1 Tilt	000-255	0-100%
18	Head 1 Tilt Fine	000-255	0-100%
19	Head 1 Zoom	000-255	0-100%
20	Head 1 Dimmer	000-255	0-100%
21	Head 1 Dimmer Fine	000-255	0-100%
22	Head 1 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
23	Head 1 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
24	Head 1 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
25	Head 1 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
26	Head 1 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
27	Head 1 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
28	Head 1 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
29	Head 1 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
30	Head 2 Tilt	000-255	0-100%
31	Head 2 Tilt Fine	000-255	0-100%
32	Head 2 Zoom	000-255	0-100%
33	Dimmer2	000-255	0-100%
34	Head 2 Dimmer Fine	000-255	0-100%
35	Head 2 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
36	Head 2 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
37	Head 2 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
38	Head 2 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
39	Head 2 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
40	Head 2 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
41	Head 2 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
42	Head 2 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
43	Head 3 Tilt	000-255	0-100%
44	Head 3 Tilt Fine	000-255	0-100%
45	Head 3 Zoom	000-255	0-100%
46	Head 3 Dimmer	000-255	0-100%
47	Head 3 Dimmer Fine	000-255	0-100%
48	Head 3 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
49	Head 3 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
50	Head 3 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
51	Head 3 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%

Channel	Function	DMX Value	Description
52	Head 3 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
53	Head 3 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
54	Head 3 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
55	Head 3 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
56	Head 4 Tilt	000-255	0-100%
57	Head 4 Tilt Fine	000-255	0-100%
58	Head 4 Zoom	000-255	0-100%
59	Head 4 Dimmer	000-255	0-100%
60	Head 4 Dimmer Fine	000-255	0-100%
61	Head 4 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
62	Head 4 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
63	Head 4 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
64	Head 4 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
65	Head 4 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
66	Head 4 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
67	Head 4 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
68	Head 4 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
69	Head 5 Tilt	000-255	0-100%
70	Head 5 Tilt Fine	000-255	0-100%
71	Head 5 Zoom	000-255	0-100%
72	Head 5 Dimmer	000-255	0-100%
73	Head 5 Dimmer Fine	000-255	0-100%
74	Head 5 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
75	Head 5 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
76	Head 5 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
77	Head 5 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
78	Head 5 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
79	Head 5 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
80	Head 5 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
81	Head 5 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
82	Head 6 Tilt	000-255	0-100%
83	Head 6 Tilt Fine	000-255	0-100%
84	Head 6 Zoom	000-255	0-100%
85	Dimmer6	000-255	0-100%
86	Head 6 Dimmer Fine	000-255	0-100%
87	Head 6 Red / Cyan	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
88	Head 6 Red Fine / Cyan Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
89	Head 6 Green / Magenta	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
90	Head 6 Green Fine / Magenta Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
91	Head 6 Blue / Yellow	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
92	Head 6 Blue Fine / Yellow Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
93	Head 6 White	000-255	RGBW mode: 0-100% / CMY mode: 100-0%
94	Head 6 White Fine	000-255	RGBW mode: 0-100% / CMY mode: 100-0%

6 Function-Channel Reference

Use these tables for channels that point to a shared macro or control reference. Keep all DMX ranges matched to the installed firmware.

LED EFFECT CORRECTION The source range 163-179 overlaps the next range 171-178 and repeats Effect 31. This edition normalizes the continuous sequence to 163-170 and labels the second repeated entry Effect 32.

6.1 Strobe Ranges

DMX Value	Function
000-019	Blackout
020-024	Open
025-064	Strobe from fast to slow
065-069	Open
070-084	100-0% strobe, from fast to slow
085-089	Open
090-104	0-100% strobe, from fast to slow
105-109	Open
110-124	Random strobe, from fast to slow
125-129	Open
130-144	Random 100-0% strobe, from fast to slow
145-149	Open
150-164	Random 0-100% strobe from fast to slow
165-169	Open
170-184	Pulse Strobe 1 fast to slow
185-189	Open
190-204	Random pulse strobe, fast to slow
205-209	Open
210-224	100-0-100% strobe, from fast to slow
225-229	Open
230-244	Pulse Strobe 2 fast to slow
245-255	Open

6.2 Tilt Macro Ranges

DMX Value	Function
000-005	No function
006-011	Tilt Macro 1
012-017	Tilt Macro 2
018-023	Tilt Macro 3
024-029	Tilt Macro 4
030-035	Tilt Macro 5
036-041	Tilt Macro 6
042-047	Tilt Macro 7
048-053	Tilt Macro 8
054-059	Tilt Macro 9
060-065	Tilt Macro 10
066-071	Tilt Macro 11
072-077	Tilt Macro 12
078-083	Tilt Macro 13
084-089	Tilt Macro 14
090-095	Tilt Macro 15
096-101	Tilt Macro 16
102-107	Tilt Macro 17
108-113	Tilt Macro 18
114-119	Tilt Macro 19
120-125	Tilt Macro 20
126-131	Tilt Macro 21
132-137	Tilt Macro 22
138-143	Tilt Macro 23
144-149	Tilt Macro 24
150-155	Tilt Macro 25
156-161	Tilt Macro 26
162-167	Tilt Macro 27
168-173	Tilt Macro 28
174-179	Tilt Macro 29
180-185	Tilt Macro 30
186-191	Tilt Macro 31
192-197	Tilt Macro 32
198-203	Tilt Macro 33
204-209	Tilt Macro 34
210-215	Tilt Macro 35
216-221	Tilt Macro 36
222-227	Tilt Macro 37
228-233	Tilt Macro 38
234-239	Tilt Macro 39
240-245	Tilt Macro 40
246-251	Tilt Macro 41
252-255	Tilt Macro 42

6.3 Color Macro Ranges

DMX Value	Function
000	No function
001-002	2700 K
003-004	3200 K
005-006	4200 K
007-008	5600 K
009-010	8000 K
011	Blue
012-048	Blue to cyan
049	Cyan
050-086	Cyan to green
087	Green
088-124	Green to yellow
125	Yellow
126-162	Yellow to red
163	Red
164-200	Red to magenta
201	Magenta
202-238	Magenta to blue
239	Blue
240-247	Color off, from fast to slow
248-255	Color on, fast to slow

6.4 LED Effect Ranges

DMX Value	Function
000-000	No effect
001-006	Effect 1
007-015	Effect 2
016-023	Effect 3
024-031	Effect 4
032-038	Effect 5
039-046	Effect 6
047-054	Effect 7
055-062	Effect 8
063-069	Effect 9
070-077	Effect 10
078-085	Effect 11
086-093	Effect 12
094-100	Effect 13
101-108	Effect 14
109-116	Effect 15
117-124	Effect 16
125-131	Effect 17
132-139	Effect 18
140-147	Effect 19
148-155	Effect 20
156-162	Effect 21
163-170	Effect 22
171-178	Effect 23
179-186	Effect 24
187-193	Effect 25
194-201	Effect 26
202-209	Effect 27
210-217	Effect 28
218-224	Effect 29
225-232	Effect 30
233-240	Effect 31
241-248	Effect 32
249-255	Effect 33

6.5 Background Color Ranges

DMX Value	Function
000	No function
001-002	2700 K
003-004	3200 K
005-006	4200 K
007-008	5600 K
009-010	8000 K
011	Blue
012-048	Blue to cyan
049	Cyan
050-086	Cyan to green
087	Green
088-124	Green to yellow
125	Yellow
126-162	Yellow to red
163	Red
164-200	Red to magenta
201	Magenta
202-238	Magenta to blue
239	Blue
240-247	Color gradient, from fast to slow
248-255	Color jumps, from fast to slow

6.6 Control Ranges

DMX Value	Function
000-009	No function
010-019	Reserved
020-024	RGBW (additive) color-mixing mode
025-029	CMY (subtractive) color-mixing mode
030-054	Reserved
055-059	Tilt Reset
060-064	Zoom reset
065-069	Reserved
070-074	All Motor Reset
075-079	Sequence 1-12
080-084	Sequence 12-1
085-089	Reserved
090-094	Tilt Reverse On
095-099	Reserved
100-104	Tilt Reverse Off
105-134	Reserved
135-139	Fast Dimmer Response
140-144	Smooth Dimmer Response
145-149	Linear Dimmer Curve
150-154	Square Dimmer Curve
155-159	Inverse Square Dimmer Curve
160-164	S-Curve Dimmer Curve
165-255	Reserved

7 Routine Maintenance

ATTENTION Disconnect AC power and allow the fixture to cool completely before inspection or cleaning.

- Inspect the housing, lenses, mounting points, clamps, safety cable, power cable and data connectors before every use.
- Replace damaged lenses, cables and structural parts before returning the fixture to service.
- Clean optical surfaces with a soft, lint-free cloth and a suitable glass-cleaning fluid; dry every part carefully.
- Keep fans and ventilation openings free of dust, fog-fluid residue and obstructions.
- Inspect pan, tilt and zoom travel for unusual noise, resistance, imbalance or positioning errors.
- Switch the fixture off completely at the circuit breaker or plug when it is not in use to reduce wear and extend service life.

8 Troubleshooting and Service

Symptom	Check
No light output	Verify supply voltage, power connection, circuit protection, available supply capacity and controller output.
No DMX response after reset	Confirm DMX mode, start address, selected 23/38/62/92/94CH personality, controller patch, cable polarity and connectors.
Intermittent or unstable DMX	Shorten the data run, separate signal and high-voltage cables, use shielded twisted-pair cable, inspect amplifiers and terminate the final fixture with 120 ohms.
Fixture does not start	Check the supply rating and inspect for transport damage, moisture, loose internal connectors or damaged electronics. Refer internal inspection to qualified service.
Abnormal pan, tilt or zoom	Remove obstructions, run the appropriate reset, inspect menu limits/reversals, and refer belts, Hall sensors and internal mechanisms to qualified service.
Reduced or unstable output	Check temperature, ventilation, fan operation, optical cleanliness, supply quality and error records.

SERVICE There are no user-serviceable high-voltage parts inside. Refer internal repair, light-source replacement, motor/belt service and calibration to the manufacturer, its service agent or similarly qualified personnel.

8.1 Warranty and Support

Damage caused by misuse, ignored warnings, unauthorized repair, incorrect installation or operation outside the specified conditions may be excluded from warranty coverage. Include the model, serial number, firmware version, active personality and a clear fault description when requesting support.

End of manual